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AND THE SCIENCES
SUPPORTING PUBLIC HEALTH

THE BIRTHPLACE OF THE A. PH. A. IN 1852
(The Building Then Housing the Philadelphia College of Pharmacy)

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AMERICAN JOURNAL OF PHARMACY

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CONTENTS

EDITORIAL

THE A. PH. A. AND ITS INFLUENCE

THE return of the A. Ph. A. to Philadelphia to celebrate its one hundredth anniversary brings to Philadelphians an inner satisfaction, for it was here in 1852 that the Association was born.

Philadelphians, somehow or another, can never lay claim to any glory or achievement without finding their neighbors in New York either had the idea first, or have since improved on it. We are told that the movement leading to the A. Ph. A. originated in New York prior to its establishment here. A plaque commemorating this event has already been fastened to an appropriate place in New York as evidence of their precocity a century ago. Those of us who travel to New York each year to see the Remington Medal conferred upon one of pharmacy's distinguished leaders sometimes wonder how we in Philadelphia allowed ourselves to be placed in the position of having to go to New York to see a medal bearing the likeness and name of a famous Philadelphian awarded, and even at times to a Philadelphian!

The A. Ph. A. first met in the Quaker City in 1852 in a building which then housed the Philadelphia College of Pharmacy. The famous William Procter, Jr., was a key figure in the organization of the A. Ph. A. and its first president was Daniel B. Smith, who also was for 25 years the president of the Philadelphia College of Pharmacy. Many other Philadelphians over the years had great influence in formulating the program and policies of the A. Ph. A. including such well known figures as Joseph P. Remington, Charles H. La Wall and Ivor Griffith all of whom served as president. Philadelphia and Philadelphians therefore have been and are closely identified with the A. Ph. A.

When one compares the status of pharmacy in 1852 with its eminence today it is obvious that great changes for good have taken place in its personnel, products, techniques and services. While we still hear some refer to the good old days in pharmacy few indeed, if they were sick, would choose to be served by the pharmacy of those by-gone days.

Many are the influences and factors which have contributed to pharmacy's present position. Other than the purely technical advances which have been made probably no other influence outweighs that of the American Pharmaceutical Association. The truth is that, without the A. Ph. A., pharmacy might well have lost its identity as a professional calling. The standards which we have achieved and the recognition which pharmacy has been given have been due largely to the A. Ph. A. and its program.

Every state in the country now requires formal college training and a professional licensure examination in order to practice pharmacy. Every state has a pharmacy act which defines the professional duties of the pharmacist. None of these existed in 1852. In 1852 drug standards, such as they were, were purely optional since there were no laws establishing them as required. Cancer cures and tuberculosis remedies were widely advertised and sold to the public. Most of the drugs used by physicians were either palliatives or inert and some physicians boasted that the only drug they needed to practice was opium. How different today with the standards established in the U. S. P. and N. F. required by law, hundreds of specifics making the conquest of more and more diseases possible, and the public given full protection against exploitation by charlatans and quacks. In all of these advances the A. Ph. A. has played a major part.

One cannot review these contributions without dwelling for a moment on what is both ironic and a paradox. In spite of all the contributions of the A. Ph. A. to the growth and stature of pharmacy it still does not enjoy the full support of the rank and file of pharmacists which it so richly deserves. The good which it has done has helped all pharmacists, members and non-members alike, but there are far too many who enjoy its benefits without joining its ranks. Pharmacy, without professional stature and recognition, would be in a sad plight indeed. To assume that no effort is needed to maintain these is playing directly into the hands of those who wish to see them

destroyed and lost forever. If the A. Ph. A. is to play its full role in the continued development of pharmacy it should have and must have the support of every member of the profession. No other organization regardless of its own intrinsic value can replace or supplant the A. Ph. A. This fact must be carried to those who ignore it by all those who would continue the work of the A. Ph. A. and would have it fulfill its destiny. We salute the A. Ph. A. in this its centennial year and we pledge it our continued support in the service of pharmacy and the public health and welfare.

L. F. Tice

PHARMACEUTICAL MANUFACTURERS' PLANS *

By Theodore Klumpp, M. D. **

THE theme of the Rutgers Pharmaceutical Conference, "Progress through knowledge and mutual understanding," has been well chosen. People, like organizations, sometimes get ahead for awhile through the magic of good luck (and I'd just as soon have luck on my side), but sound and lasting progress, the kind one can count on, is built on the more solid foundation of knowledge and mutual understanding.

And why mutual understanding? For one thing, because we live in a vastly complex world that science has suddenly made a small world, in which every man's welfare and well being is more dependent on the cooperation of others than ever before in the history of mankind. Mutual understanding has become indispensable to our welfare.

It is needed in Pharmacy too, between all the educational, professional, and business interests that revolve about pharmacy as a hub. The pharmaceutical industry has been passing through a period of phenomenal growth. In something like thirty-five years this industry developed from an insignificant embryo to a giant. Today, no one questions the fact that we lead the world in the development and production of pharmaceuticals. We have become research conscious and we have recognized the wisdom of spending a substantial proportion of our income for the development of new products. But more important than this, the drugs developed in the last ten years are evidence that we have caught on to the knack of productive research, which is, in the last analysis, the real test of effectiveness.

It has been said, and particularly by some of our foreign competitors, that the American drug industry prospered in relation to the rest of the world because we were spared the devastating ravages of World War II. There is, to be sure, a measure of truth in this, but the fact is that the meteoric rise of the American pharmaceutical

* Presented before the Rutgers Pharmaceutical Conference May 14, 1952.

** President, Winthrop-Stearns, Inc.

industry was well on its way before World War II. Furthermore, let us not forget that we converted the mold *penicillium notatum* from a laboratory curiosity to the greatest life saving drug the world had thus far known, during the period in which the Germans were on top of the world and winning the war, and the Allies were losing it. And, parenthetically, I might also mention that our industry brought the price down from $40.00 for 100,000 units in 1942 to one and eight-tenths cents for the same amount in bulk in 1952, which is in itself eloquent evidence of the competence of our research and the vitality of competition in our industry. While the Germans were at the height of their success they brought out two sulfa drugs, while almost a dozen different useful sulfas emerged from our laboratories.

Some conception of the rapid growth of our industry may be obtained from the following figures for which I am indebted to Mr. Wallace Werble of *Food, Drug and Cosmetic Reports.* At manufacturers prices the value of pharmaceuticals sold, *including* medicinal chemicals and bulk botanicals was as follows:

1929—386 million
1931—322 million
1933—263 million
1935—297 million
1937—353 million
1939—360 million

In 1947, excluding medicinal chemicals and bulk botanicals, and related only to products promoted to the physician, the figure had risen to 577 million. This figure, derived from U. S. Dept. of Commerce direct census data, is probably the most accurate base line available of the true sales of the pharmaceutical industry. Using this figure and published annual reports of houses engaged solely in pharmaceutical business, Mr. Werble has estimated the 1951 pharmaceutical volume at one billion dollars. It appears then that the pharmaceutical sales volume has more than doubled since the close of World War II. It is significant that the gain is real and not the result of inflation since pharmaceutical prices have not risen, in fact they have declined significantly.

The business of the drug wholesalers and retailers has also grown rapidly, as shown by the following figures obtained through

the courtesy of Dan Rennick of the *American Druggist*. The business of drug wholesalers in all lines increased more than 2½ times in the 10 years from 1941 to 1951. In 1941 it was 654 million dollars, in 1945—1.063 billion, in 1947—1.350 billion, and 1.655 billion in 1951. In a similar way the retail drug business grew from 1.847 billion in 1941 to 3.155 billion in 1945, 3.867 billion in 1947, and 4.478 billion in 1951, similarly a gain of almost 2½ times in 10 years.

I did not come here to boast about the growth of our industry. What I have given is merely background material for a point I want to make. In the words of Shakespeare, "What's past is prologue."

After thirty-five years of phenomenal growth, it is not at all surprising that a few dislocations and maladjustments should develop as a result. Today tens of hundreds of different products and their duplicates are available for the treatment of every known symptom and disease. And the end is not yet in sight. It is evident that our distributors, the wholesalers and retailers, have not been able to assimilate the products of this rapid growth without indigestion. We have growing pains and, in some respects, we are too large for our britches. If you want some idea of the magnitude of the distributor's problem, you need only visit the warehouse of one of our drug wholesalers and see the vast array of products he carries, or go into any first class prescription pharmacy and look over the endless shelves of prescription items he requires to serve the medical profession and our industry. It is something to behold! "Solomon in all his glory was not arrayed as one of these."

Retailers and wholesalers are complaining bitterly about the immense inventory that the productivity of the pharmaceutical industry has forced them to carry. It is a serious problem. We manufacturers are aware of it and deeply concerned about it. It is one that we have been studying earnestly, but so far an altogether acceptable solution to it has not been found. But while we are exploring avenues of escape let us not lose sight of the fact that the inventory problem is an inevitable by-product of strength and prosperity. It is a lot better, for all its woes, to have shelves overcrowded with products than to have them empty. I have heard suggestions to the effect that the government, or the Boards of Pharmacy, or some other vaguely referred to authority should take steps to prevent manufacturers from putting out so many duplica-

tions of existing products. No thinking man would for a moment want to have the government tell the manufacturers what products they can put out and in turn what products the pharmacists can or cannot sell. But we need not be too surprised to find an occasional champion of free enterprise forget all about principles and yell for governmental help the minute his own ox is being gored just a little bit. That is one of the vagaries of human nature that merely goes to show that there isn't a Socrates born every minute, as P. T. Barnum put it.

I don't suppose our wholesalers and retailers have given much thought to it, but they should be staunch supporters of our American patent system. Aside from what patents do to promote research, and this is a story of its own, there is no problem of "me-too" products when items are marketed under U. S. patents.

While I am, as I said, hopeful and confident that given a little time a reasonable solution to this problem will be found, I am equally certain that if it takes too much time, the laws of supply and demand will solve it for us and in a way we won't enjoy. Present appearances to the contrary, I don't suppose it takes a Socrates to discover that the laws of economics are still in effect. We have had some eighteen years of so-called prosperity and a constantly expanding economy. I dare say history will record it as an era of unprecedented prosperity. But those things don't go on forever, in spite of what some government economists seem to imply. Some day we will have another recession and there are able students of the subject who think that that day is not so far away. When it comes, the wholesalers' and druggists' problem of too many items and duplicate products will come to an end, and they will look back to the good old days, when their shelves were groaning with products and the cash register was doing very nicely.

One of the serious consequences of drug abundance has been the temptation to druggists to substitute the product of another manufacturer for that called for by the doctor. It is a problem that was with us before the days of so-called prosperity and pharmacy does not condone it, but it has risen to alarming proportions. Not only is it an unfair trade practice, in violation of State and Federal laws, but in the long run it does the druggist no good. When a manufacturer fails to get the business his detailing and advertising created, to the extent he failed to get it, his ability to develop addi-

tional business is impaired. I think it is reasonable to say for pharmaceuticals that customers are brought into drug stores predominately by the efforts of the manufacturer. Only to a very small extent can the druggist influence the doctors' prescriptions. Surveys have shown that prescription business pays well. We manufacturers are partners with our druggist friends in this business. We don't want to be put into the diagreeable position of taking legal action against our friends and customers, whose success is our success. It is not good business to sue our customers. But in the minds of many in our industry there is the growing conviction that soft words have failed to stop this nefarious business and the only way to correct it is to get tough with the chiselers.

Our industry has reason to be proud of its record during this period of inflation. Prices of drugs have fallen not risen, and I doubt that any industry has done a better job in this respect than we. But it is a matter of common knowledge that the public regards the cost of drugs as too high. This should be a matter of serious concern to us all because when the chips are down on socialized medicine, as they will be when the next major depression comes, the impression of the public concerning the cost of medical care and drugs may play the decisive role in determining which way we go. Obviously drugs are too expensive for those who can't afford to buy them, but worse than that they are also considered too expensive by those who can afford them. And that's bad because it means that one or more of the following possibilities are true:

(a) Technologically, the pharmaceutical industry is inefficient, or

(b) Pharmaceutical profits are too high, or

(c) The cost of distribution is excessive, or, finally,

(d) The public's sense of values is wrong.

There can be little argument on the first point. The pharmaceutical industry has proved itself by a thousand different tests to be highly efficient. The price history of every new drug is eloquent testimony to our ability to lower costs. If it were not for the high wages we pay, no other country could compete with us.

With respect to profits, a number of successful pharmaceutical houses are enjoying good profits during this period of prosperity.

It is basic in a system of free enterprise that there be a substantial incentive for success and the fact that a few houses in the industry have attained such incentives, that is before taxes, is only evidence that our industry is economically in a sound position. Some American industries are not, for instance our shipping industry and the Long Island Railroad. But profits in the industry generally are not out of line with other successful American industries.

With respect to distribution costs, I don't think anyone could get very far with the argument that distribution costs are excessive. The published earnings of our wholesalers and chain drug stores are not generally out of line and we know that competition is keen for the independent druggists. The fact that vertical integrations has never gotten very far in our industry is also pretty good evidence that distribution costs are normal.

We come then to the last point, namely, the public's sense of values is wrong. On this score I think we can make a very strong argument. It is a curious thing but the public does not mind paying a dollar and a half to two dollars for a box of candy but complains when a prescription costs about the same amount. And, incidentally, the average cost of a prescription is just about the same as the cost of a box of candy. Most people feel that they got their money's worth when they are out $10. or $20. for an evening's entertainment, but resent it when it costs them the same amount for the service of a physician whose skill may determine whether they live or die. The cost of two weeks vacation is ordinarily regarded as reasonable but when the same amount goes to pay a hospital bill it is considered robbery. Visit the poor districts of your city, where the so-called medically indigent live, and you will find the roofs bristling with television antennas.

On the other hand, it is true that there are many who cannot afford the price of any catastrophe whether it be broken bones or a wrecked automobile. Society has for a long time recognized that it must lend a hand when overwhelming catastrophes strike, and nothing will change that basic principle. But the medical profession and the whole drug industry has failed to show the public that good medical care is not only worth the price, but worth a lot more than candy, or cigarettes, or television sets, or even a vacation trip. This is a public relations and educational program which I hope will be undertaken because the very survival of free enterprise in

medical care and in the drug industry may hinge on whether or not the public thinks it is getting its money's worth.

Will the pharmaceutical industry continue to grow in the future or has it passed its period of greatest development? I have no hesitation in stating my belief that the growth of this industry has just begun. I base this expression of faith on many considerations, among the most important of which is the fact that we are just now seeing the first light of the dawn of an era of scientific medicine. A science is only as good as the instruments of precision it has to work with, and in the past the doctors did not have the tools to do a highly scientific job of diagnosing and treating disease. In this respect, surgery, which is essentially the mechanical branch of medicine, has been better equipped and has gone far ahead of the other branches of medicine. But with new chemical, radiological, electronic and biological tools, we will witness a new era of precision, efficiency, and certainty, in the diagnosis and treatment of disease. At the present time all of us give our automobiles more careful attention than our own bodies. We give our cars a Spring and Winter check-up, but how many of us give the most delicate and complicated machine ever created a bi-yearly, complete check-up? I venture to predict that the periodic physical examination at least twice a year will gradually become a routine custom, and will be practiced by practically everyone in less than two decades. This growing interest in health in an active rather than intellectual sense, as is presently the case, will create an ever growing demand for pharmaceuticals. In view of the fact that more and more complicated instruments of precision will be used in diagnosing and treating disease, it seems to me that the hospital and clinic will play an increasingly more important role in medical practice. This would seem to indicate that the hospital pharmacy will also assume a position of increasing importance. Whether the hospital pharmacy of the future will be run by the hospital or operated privately as a concession is something I do not know.

In the past we have made our greatest strides in the conquest of bacterial infections. There are still bacteria that we haven't yet mastered and it is likely that new mutants will appear that will for a long time keep us busy in this field. But, nevertheless, I am confident that our research endeavors will find their major emphasis in other directions. We have hardly touched important virus dis-

eases, which I venture to say will be the next class of organisms to yield to the magic wand of research. There is now real promise that the word poliomyelitis will cease to strike terror in the heart of every father and mother before another decade has passed. But if I may be so bold as to say so, I believe that the greatest research activity in our industry will turn toward three other fields of interest: endocrinology, cancer, and neurological and mental disturbances. In endocrinology we have a host of glandular disturbances and imbalances and such unsolved disease entities as diabetes. I believe that high blood pressure and arteriosclerosis, the latter the greatest killer of them all, belong in this category. We have no real clue as to the nature of cancer and it is possible that several distinct and different mechanisms will prove to be the cause. It is even more likely that the many serious and unsolved mental and neurological disturbances to which man is heir will also prove to be different in their origins and causative mechanisms.

There is no doubt that medical scientists still have plenty left to do and so long as Mother Nature fails to create and maintain perfectly functioning bodies, she will need the help of the pharmaceutical industry. The important thing is that we have at long last learned how to go about unlocking her mysteries. Give us time and enough profits to do research, and some day we may at least understand them all.

INAUGURAL ADDRESS OF THE INCOMING PRESIDENT OF THE A. M. A.*

By Louis H. Bauer, M. D.

IN subscribing to the oath of office as President of the American Medical Association, I am cognizant not only of the honor conferred on me, but also of the tremendous responsibilities accompanying the position.

When I pledged myself to "promote the public health and welfare," I was promising not only a course of future action but the continuation of a principle that has guided the American Medical Association since its inception more than a century ago. That principle of public service has not always been popular, even among the Association's members. Repeatedly, however, the AMA's course of action has in time been justified by results, and has won universal approval.

The Association first came under heavy fire nearly a half century ago, when it began its campaign to raise the standards of medical education in this country. Medical education was at a low ebb, and it was imperative that the low grade medical schools and diploma mills existing at that time be eliminated. The campaign was successful and today we have only high grade schools of medicine in the United States. One dramatic proof of this campaign's success lies in the fact that today this country is the Mecca for medical training. Nowhere in the world is the level of medical education higher. Nowhere in the world is there a higher standard of medical care.

A little less than a half century ago there were no satisfactory criteria by which either the physician or the public could gauge the purity or value of drugs or other medicaments. The American Medical Association initiated a campaign to eliminate worthless drugs and patent medicine fakirs, and to establish high standards for therapeutic agents. Again the Association was attacked by those who had been guilty of fraud. The fight was won, however, and the drug industry today is on a higher plane in this country than anywhere else in the world. The industry cooperates fully with medicine in research and the development of products of high standard. The efforts

* The Editor has published Dr. Bauer's address because it calls attention to problems facing all the health professions and indeed all those who cherish our American way of life.

of the Association's Council on Pharmacy and Chemistry have been a major factor in attaining these results, and in raising the character of medical care. Both the profession and the public have been the beneficiaries of this second campaign.

So, too, I could mention the work of the Association's other Councils and Committees which have set universally recognized standards for foods, nutrition, cosmetics, apparatus and industrial health. The AMA's Bureau of Investigation has waged a constant war on worthless drugs, charlatanism and quackery with marked benefit to the public. Yet without exception, these campaigns have met with opposition at the start.

Now, the Association is told that its scientific activities are all right, but its socio-economic policies are all wrong. Twenty years ago we were criticized because we dared to question some of the developing health insurance plans. What was overlooked, of course, was the fact that no criteria had been established at that time by which to assess such insurance, and that little reliable information about it was then available. A year later we recommended experimentation in that field, and listed safeguards to be included in plans for the protection of patients. As a result, Voluntary Health Insurance has become the fastest growing insurance project in history, and is providing a sound means for prepayment of the major costs of illness. Yet, now we are vilified because we do support it and because we continue to oppose Compulsory Health Insurance.

There are, of course, defects and shortages in the voluntary programs of today and we are striving to eradicate them. Protection must be developed for those over age 65 and for those suffering from financially catastrophic illness. These gaps in coverage not only must be eliminated, but they will be, through the untiring efforts and cooperation of all physicians, prepayment plans and insurance organizations. With such team work, I predict that within a few years the tumult and the shouting over health insurance will have died, and the American Medical Association will receive as much acclaim for its support of Voluntary Health Insurance as it finally received for raising the standards of medical education.

It seems difficult for some people to distinguish between careful analysis in the public interest, and case-hardened do-nothingism. The Association often is accused by its uninformed or politically-motivated critics of opposing everything and supporting nothing. But

what are the facts? During the entire history of the American Medical Association, with just one exception, there has been no major Federal health law enacted that was not either sponsored or supported by the Association. That one exception proved to be the failure the Association predicted it would be, and was not renewed by Congress when the Act expired. Yes, there has been criticism and opposition, but we all know that the only individual or organization never criticized is the one that never does anything.

In my oath of office I promised "to strive constantly to maintain the ethics of the medical profession." Our profession makes no pretense of infallibility. It has faults and we recognize them. We are striving continually to eliminate them.

Unfortunately, there are a few physicians who are not a credit to their profession. They consider the practice of medicine as a means of financial gain and that alone. Such individuals should be driven out of their Medical Societies. We have established committees to settle problems that arise in the doctor-patient relationship, and the number of those committees must be increased still further. These committees need, moreover, to be given teeth. Medical Societies must be adamant in disciplining those unethical physicians who prey upon the public. A physician who charges exorbitant fees or who, when summoned in an emergency, refuses to make the call unless assured that the patient can pay, is a disgrace to the profession. Only a few are guilty of such practices, but those few do the profession incalculable harm.

In my oath, I dedicated myself and my office to bringing increasingly improved medical care within the reach of every citizen. It is not enough that we have the world's highest standards of medical care. This type of service must reach the entire population. It is a goal not easy to attain, but we shall not fail for lack of trying.

We must see to it that diagnostic facilities are available to all areas now lacking them. When such facilities are provided, physicians will be attracted to those areas.

We must expand our public health facilities to cover all sections of the country. All are in agreement that such expansion is necessary. The only reservations concern the amount of authority to be given the Federal Government. Let all concerned cooperate and solve this problem, so that large numbers of our population shall not be without proper environmental sanitation, protection against com-

municable disease and protection of their food, milk and water supplies.

Forward looking plans are necessary for the care of chronic invalids, the number of whom is increasing, due to the constantly lengthening life span. Physicians must also take active leadership in the formation of community health councils.

Satisfactory programs for the medical care of the indigent must be developed for all areas, along the lines of those in operation in New York, Pennsylvania and several other States.

Studies of the various methods of delivering medical care are being carried on by the American Medical Association, and these studies will be continued. It becomes increasingly apparent that no one method provides the answer for every area and every group of citizens. That is one of the medical profession's objections to any Government-controlled type of medical care plan. Under such a plan the same system would be imposed on every region and every individual regardless of need or local conditions.

Three years ago American physicians answered the challenge of Socialized Medicine. We have been under vitriolic attack ever since. We have been accused of opposing progress. We have been told that the socialization of medicine was inevitable, that the country was turning socialistic and that it was useless to fight the Government.

Our answer to these claims was to meet the issue head on. We did not fear to face up to Government even when an attempt was made to intimidate us. We found that many members of the legislative branch of Government thought we were right and were eager to give us active support and encouragement. We have not hesitated to go to the people and tell them the story of the pitiful failures of Socialized Medicine elsewhere. It wasn't necessary to tell the people that they would never tolerate some of the conditions that inevitably accompany such a system. They saw that for themselves. We have won the support of thousands of organizations and they are continuing in the fight to roll back the persistent tide of Socialism.

When the weight of public opposition to Socialized Medicine became too heavy for the socializers to bear, we began to hear that the Government's Compulsory Health Insurance plans were not Socialized Medicine. That is ridiculous. Any plan which is supported by taxation of the people and in which the rules and regulations governing the participation of physicians, hospitals and patients are written

by Government bureaucrats who also determine the fees for services rendered, is Socialized Medicine in any intelligent person's language.

American medicine, having won a breathing spell in its fight to preserve its freedom, is now accelerating its efforts to improve the quality and availability of medical care. Tonight I want to assure my audience that the American Medical Association will never relax in the fight for better health and longer life for the American people. It will cooperate with any organization that is sincerely working for the same aims.

The medical profession is alert to the continuing danger of its socialization, and it will remain alert. But it is aware, also, of a greater danger—a danger to the Nation itself. We have not yet reached the state of socialization that now exists in England, but we are traveling along the same road and traveling at a more rapid pace. We physicians, in our fight against Socialized Medicine, have proved that an aroused citizenry can put a brake on this rush toward Socialism.

Sufficiently aroused, the American people can bring to a full stop the pellmell retreat from fundamental American principles. But they cannot do it if they don't vote. It is a shameful fact that in the last Presidential election, barely 51 per cent of the eligible voters exercised their right of suffrage.

The medical profession, like other groups, has been remiss in the matter of voting, but in this crucial year of decision we intend to set a pattern of good citizenship, in registration and voting turnout.

We physicians shall continue as active participants in the democratic processes of our country so long as the democratic processes remain a part of our American heritage.

The great decision—Socialism or Americanism—must be made by the people. And it must be made by all the people.

Some of medicine's critics have said, rather naively, that politics is a dirty hands business, and physicians, who belong to a clean hands profession, should not enter it. How, I ask you, can politics be anything but dirty if those with clean hands stay out?

Elihu Root, a former Cabinet officer, once said: "Politics is the practical exercise of the art of self-government. Somebody must attend to self-government if self-government is to continue. The principal reproach against any American should be that he is not a politician."

This Nation has had an unexampled, shocking demonstration of corruption in Government. Yet, recently, a Federal official implied that corruption was of no importance as a campaign issue. How are we to eliminate corruption in Government unless all citizens express themselves in the only way that counts, by voting?

Not only are we faced today with corruption in Government, but with an attempt to destroy everything on which this Nation was built and which has made it great.

American institutions and American traditions have been scoffed at. In many cases, our young people are not being taught about American history and the American Constitution, nor why our forefathers established the governing bodies of our country in the manner in which they did. Attempts are even being made to undermine their patriotism. Recently a National magazine polled a large group of young people. About 50 per cent of those interrogated thought totalitarian Government a good thing. A large number believed that the press should be limited in the news it could print. Some—and not a small number—were in favor of the third degree, or worse, in obtaining confessions.

Some Government departments seem to have similar feelings. For instance, the Federal Security Agency, the greatest propaganda agency in the United States, recently rebuked a teacher for expressing his views on Socialism as he observed it in another country. The teacher was told that the publicity given his comments might bring about the exclusion of his area from the international teacher exchange program. Shall the American people tolerate such infringement of their freedom of speech?

The very fundamental philosophy of Americanism is being undermined. Our country is traditionally a democracy within a republic, but it is fast becoming a bureaucracy ruled largely by administrative law written not by elected, but by appointed officials.

Thomas Jefferson fought against too much power in central Government, and supported decentralized Government and freedom for individual citizens. Slowly, but surely, one by one, we are losing those freedoms guaranteed by the Bill of Rights. Personal liberties are being traded for Government subsidies. We are selling our birthright for a mess of pottage. Unless we act soon, we shall suddenly wake up to find that we have traded liberty for shackles—the shackles of destructive, confiscatory taxation, the shackles of complete depend-

ence upon Government for everything in life, the shackles of suppression of initiative and competition, the shackles of suppression of a free press and free speech. In Washington parlance today the word "Government" rapidly is being substituted for the word "country." We are told what we should do for our "Government." I say, we should do everything for our country, but our Government should serve us.

It is the task of our two major political parties, and their leaders, to see that the people of the United States are given a Government that serves, rather than a Government that dominates. Next month those parties will hold their National conventions here in Chicago. The delegates to these conventions will nominate the next President of the United States. They will write the platform upon which our Governmental policy will stand during the next four years. To those delegates, I say:

Your task is monumental. It is historic. Your burden of responsibility hardly has been matched since the days of the Constitutional convention itself. The eyes of the Nation—yes, the eyes of the world—will be upon you. You will not be alone in the Convention Hall. In these days of Nationwide radio and television you will have millions watching you, testing your sincerity, weighing your judgment, analyzing your motives.

The Platforms you write must disavow all threats to our constitutional independence and liberty. They must be bulwarks of a revitalized, positive Americanism. The men you nominate must be men of integrity—fearless men who will be guided by the highest concepts of the welfare of the Nation, of the crucial need to preserve America as a haven of hope in a world that seeks peace and freedom. The party that fails to do these things will be the party of failure. A candidate who emerges from a smoke-filled room will be the candidate of defeat.

Further I say to the people of this Nation:

This is the year in which we must decide whether we want this country to continue its majestic growth as the greatest Nation of free men the world has ever seen, or fall into lock-step with the decadent Socialisms and Totalitarianisms of the Old World.

This is the year in which we must live up fully to the proud privilege and responsibilities of citizenship which generations of Americans have worked, fought and died to hand down to us. This

is the year in which we must rededicate ourselves to the full execution of our right of franchise.

Whatever our party affiliations, we must examine closely the policies professed by every candidate. Neither straddling nor flamboyant evasion must be allowed to sway us. We must demand straightforward honesty, frankness and sincerity in our candidates. Only in this way can we be sure that we shall have a Government that represents the true will of the people.

About 100 years ago, Daniel Webster said, "It were but a trifle even if the walls of yonder Capitol were to crumble, if its lofty pillars should fall, and its gorgeous decorations be all covered by the dust of the valley. All these may be rebuilt.

"But who shall reconstruct the fabric of demolished government?

"Who shall rear again the well-proportioned columns of constitutional liberty?

"Who shall frame together the skillful architecture which unites national sovereignty with States rights, individual security and public property?

"No, if these columns fall, they will be raised not again."

We shall do well today to remember those words of Daniel Webster.

I am proud to be a member of the American Medical Association which has spearheaded the fight against the Socialism that is creeping over this country. I am proud to be the leader of the Association during the coming year. But, most of all I am proud to be an American citizen and I intend to do all in my power to carry out the concluding pledge of my oath of office—to champion the freedom of medical practice and freedom for all my fellow Americans.

American institutions and American traditions must be protected. Through the aroused vigilance of the American people they shall be protected.

Let us never permit this Nation of ours to descend to the level depicted in the third stanza of Kipling's "Recessional"—

> "Far flung our navies melt away
> On dune and headland sinks the fire
> Lo! all our pomp of yesterday
> Is one with Nineveh and Tyre,
> Lord God of Hosts! Be with us yet
> Lest we forget! Lest we forget!"

ARE PHARMACY COLLEGES MEETING THE NEEDS OF THE PROFESSION AND INDUSTRY?*

By Roy A. Bowers, Ph. D.**

I DO not like this subject. The more I look at it, the less I like it. I suppose I could talk to you instead on the breeding of tulips, but I would rather tell you what I don't like about the subject. Indeed, I am grateful to the conference committee for giving me a subject with which I can express so much of my opinions. If many of you disagree with me, so much the better; we both can educate each other.

The first thing I don't like about the title "Are Pharmacy Colleges Meeting the Needs of the Profession and Industry?" is that it infers that the profession and industry have stated what their needs are or that the stated needs are not being met. Indeed, I suspect that it would take a lot of talking and disagreement for the professions and industry to state what their needs are. I know very well that it would take a lot of thought. And I am just as certain that the statement of the needs of the profession and industry would mean real progress. It would mean progress for the colleges of pharmacy, and it would mean progress for the profession and industry, for the statement of those needs, or objectives, if you like, would enable all segments of pharmacy to develop an understanding of each other's desires, problems, and responsibilities.

Once we understand each other's desires, problems, and responsibilities, we would realize that the responsibility for carrying out our objectives lies in all of us. All of pharmacy would need to cooperate in achieving those objectives. All branches of pharmacy would need to know what the colleges of pharmacy are like. A first step toward this has already been accomplished. Recently, Dr. Richard A. Deno of the Rutgers faculty, who has been serving as Director of Educational Relations, American Council on Pharmaceutical Education, published an article on our colleges in THE AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION.

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* Read before the Rutgers Pharmaceutical Conference, May 14, 1952.

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Among other things, Dr. Deno pointed out that there are 72 accredited colleges, but no two of them are closely alike. Forty-two of them are under public control. A dozen are parts of private institutions of higher education. Nine are parts of church-controlled institutions, and three are in municipal universities. Only six remain of the many colleges of pharmacy once under independent control. However, one of the church-controlled and four of the state-controlled colleges function as self-controlled institutions Rutgers is an example of a college of pharmacy in a state university with all courses, general and professional, taught by the college of pharmacy faculty. In this respect Rutgers resembles the independent colleges of pharmacy. However, Rutgers is undergoing a major change in its organization which will result in its becoming more closely akin to the state university pattern of pharmaceutical education.

Dr. Deno also noted that there is little evidence that the educational programs of the colleges of pharmacy have been developed realistically to fulfill today's needs. Nor is there preparation for tomorrow. Is this surprising? Remember, the profession and industry have not stated their needs. Can a college prepare its students to meet needs when those needs have never been stated? Can a college attain objectives without knowing what those objectives are?

Among the responsibilities of a college is certainly such preparation of a student as is necessary to enable him to meet the legal requirements for the practice of pharmacy. However, when a college's sole aim is to prepare the student to pass the state board of pharmacy examinations or even the major one, as it is now in a number of colleges, then a two-year or even a one-year course would be sufficient for most students. That condition is sad for it results in the state of mind that says, "What was good enough for my father is good enough for me." It is the state of mind that halted the progress of civilization in China two thousand years ago. And we know what happened to China.

The aim of every college must be recognition of pharmacy in its broadest sense as a health service profession. Pharmacy is many things. When we talk of pharmacy in its broadest sense, we mean retailing, hospital pharmacy, wholesaling, manufacturing, education and research, the law and law enforcement, the pharmaceutical press and advertising. At one time, all these functions were performed by retail pharmacy; pharmacy was retail pharmacy. Many colleges of

pharmacy do not show in their educational programs that they realize that this change has come about. Regardless of our individual interests, pharmacy in its broadest sense had a common birthplace, and with the passing of time pharmacy's purpose in society has not changed. Dr. George Urdang in his book, PHARMACY'S PART IN SOCIETY, stated that the inter-related and organized human activity which constitutes what we call "society" is founded on the assumption that every one of the groups doing some special kind of work has developed into this job and has remained in it because it is necessary to society as a whole. If all phases of pharmacy are essential, then their place in society is legitimate and cannot be challenged seriously. If they are not essential, then they will gradually fade and finally disappear.

Pharmacy colleges have not stood still over the ages; to see this you only need compare the pharmacy college today with that of a generation ago. Today, more students are able to go to college, and more apply for entrance to the pharmacy schools; thus, we are forced to choose with more care those who may study pharmacy. Only the best are admitted. Today our faculty members are better prepared. A man can succeed in college teaching today only if he has completely mastered all phases of his field and has shown himself capable of uncovering new facts; each must be a true authority in some sphere of human knowledge. Today the buildings and laboratories are better equipped than ever before.

There is however, more room for improvement than ever before. If more of the capable young men and women graduating from our high schools today were aware of the opportunities in pharmacy other than retail pharmacy, more capable people with high ideals of service would enter our schools. This would help overcome the strong materialism of the students we get today. We could then attract scholars to our faculties who are more fully rounded in their education, with a better background in general education. We want such people because they would raise the cultural level of pharmacy by example, and because through their philosophical nature, they would make better teachers. And finally, because we would be providing services recognized by all the citizens, we would be able to build better buildings, provide better facilities, and raise standards generally in the twofold task of the professional college: to turn out informed professional people; to form better human beings.

The faculty of a college must be made up of people who are both teachers and scholars. The college of pharmacy makes use of this twofold ability in providing the profession and the industry with both personnel and information. We provide both of these today. But we need to improve our colleges as sources of information as much as we need to improve them in their other function. A college of pharmacy should take advantage of its location in choosing which specialities of pharmacy it will train people for as well as retail pharmacy. It should use the same criteria in providing information services. And, it should provide information for more than one of the specialties of pharmacy. At present Rutgers, through Mr. Louis Kazin, keeps in touch with the retail pharmacies throughout New Jersey. Mr. Kazin recognizes also that there are services also to be rendered to the other branches of pharmacy; he seems to recognize it more than those branches do. Industries, journals, hospitals should be able to rely on the college of pharmacy nearest them for information and research services, for extension courses, seminars, and special training.

Pharmacy education in this country came into being through the profession and industry. In few professions is there as fine a rapport between the colleges and the group they serve. But there needs to be even greater contact. The profession and industry has the right to demand that education meet their needs, but they also have the responsibility of showing what those needs are and helping the colleges plan how to meet them. All this is on the way. It is coming through some of us, in spite of some of us, and even though some of us are unconscious of it. But if we all are conscious of it we can guide it and prevent it from straying up blind alleys and into unwholesome places.

Pharmacy has developed into its job and remained in it because it is necessary. The deliberate specialization which has occurred in pharmacy is one of the most characteristic features of modern society. The decisive question is: What does society today require from this special group of experts, not in one or the other branches, but in all fields of the profession and drug industry. The whole pharmaceutical structure must rest upon a firm, sustained educational foundation if pharmacy is to render the most valuable service as a profession, and its talents are to be made available to medical practice, to the public, and to the drug industry.

Pharmaceutical education has not been completely adjusted to two profound changes in our way of life, both having their beginnings at about the same time.

First, the industrial revolution destroyed for all time the idea that the scope of pharmacy shall be limited to the drug store. It is wrong, therefore, to say that pharmacy refers only to the science and art of filling prescriptions, a skill to be achieved by practical experience together with co-existent catechetical instruction in a technical college.

The second change came when the public through the states and federal government began to assume greater responsibility in the provision of broad education for the vocational endeavors of the people. The passing of the Morrill Act by Congress in 1862 gave the necessary impetus to the individual states in the establishment and promotion of pharmaceutical education in state universities.

The Morrill Act established Land Grant Colleges in which funds became available through the federal government for the benefit of agriculture and the mechanic arts. This law was passed during the period when there was feeling abroad that the colleges of the country were too exclusively classical—in any case perhaps not sufficiently adapted to the needs of men looking to the more scientific, mechanical, or vocational life. The older colleges were nearly all founded for the study of Theology and were not sufficiently adapted to the dignifying and developing of industrial or commercial vocations. Such vocations, scientific or practical, Morrill considered to be, in a fundamental way, agriculture, and the mechanic arts. These were fundamental to national life and prosperity, yet had lacked searching study. Courses of instruction for those wishing to enter them were unknown and they could not or would not come to their proper position through purely private support, but only through public support by the states of the United States.

Justin S. Morrill was not without broad views and wise breadth of undertaking. He was of no mind to let such education be of low grade; he planned that it must be of college and university grade. It was abundantly clear that agriculture and the mechanic arts were but a part of the field with which such a public-supported college might well have to do, i.e., to encourage education of men for industry and the professions with no prejudice against the classics or other literary studies.

The land grant schools in most states are the state universities or state colleges. Pharmaceutical education has taken its place along with the others. Faith in education has been a continuing theme throughout our history. In these new democratic institutions the benefits of learning were to be brought to bear on the ordinary pursuits of men, through research and instruction.

So we perceive formal education throwing off its early restraining ties and moving into a broad new sphere of responsibility. We also find the people of the land turning toward our educational institutions asking for services over and above formal educational procedures. To assure themselves that these facilities will be available, they have agreed to tax themselves to provide the necessary facilities. This broadening field of educational responsibilities places an additional burden on those concerned with the results of all this activity. It is now evident that what our colleges are to be and to do is the responsibility of all the people. All these facts hold true when we view the pharmaceutical field. It is true that pharmaceutical education in America on a formal basis had as its purpose in the beginning the training of retail pharmacists. It could only be that, for in those times pharmacy was considered by those most active in the field and by the majority of physicians, as an art which did not require theoretical knowledge but learned by practice, by daily handling and preparing remedies in common use.

Fortunately, the partnership within pharmacy as a whole has been recognized by all branches of pharmaceutical industry and science, not only theoretically but in the very practical way. The zeal for education has become an inherent part of our American way of life and in many cases we find educational institutions straining, and not always successfully, to provide facilities for those interested in obtaining necessary skills and techniques. Public funds never seem to be sufficient. In all fields of endeavor, private industry has come to the aid of educational institutions and this has held true in our profession.

Outstanding individuals in the educational and applied fields of pharmacy combined their efforts and founded the American Foundation for Pharmaceutical Education so that they could adequately promote pharmaceutical education. The special meaning of this and unprecedented example of a united action of all branches of an industry for the sake of the maintenance and promotion of scientific

education and aims cannot be expressed better than by the following quotation from a prospectus issued by the Foundation in July, 1943. Part of this was mentioned earlier in this paper, but it bears repeating:

> "The whole pharmaceutical structure must rest upon a firm, sustained educational foundation if pharmacy is to render most valuable service as a profession, and its talents are to be made available to medical practice, to the public, and to the drug industry.
>
> "It is significant that the American Foundation for Pharmaceutical Education was established not by any single branch of pharmacy but by the drug industry as a whole. It represents all persons concerned with the production and distribution of drugs and medicines, simply because pharmaceutical education is itself a matter of vital concern to all engaged in the production and distribution of these essential health products."

This concerted action of the whole American drug industry testifies to the reality of a unified body "pharmacy" responsible to society for the most effective and progressive execution of all activities concerned, the distributive as well as the scientific, administrative and industrial, by a group of experts especially trained for this purpose.

From all this, it becomes evident that some very excellent groundwork has been laid in this field of co-operative endeavor. It is our impression that the time is now ripe to explore further means whereby we can stimulate greater utilization of this liaison. The tremendous expansion in the pharmaceutical field has served to focus the eyes of the world on the profession and the pharmaceutical industry. At the same time the industry is now faced with the necessity of obtaining as many scientifically and professionally trained persons as can be made available. In the colleges of pharmacy across the country, we have a tremendous reservoir of these kinds of persons. In addition, they have an important stake in the future of the entire pharmaceutical industry. What kind of individual would be better suited to meet the needs of the profession and industry than those who have interest and intense desire in addition to knowledge, training and ability? Colleges are interested in techniques of applied education. Many of our graduates have special interests in the specific phases of the various segments of pharmaceutical endeavor. A study of the pharmacy curriculum would indicate how broad a base

the training of the pharmacy student is built upon. The rapid changes in the profession demand similar changes in the field of education. This also demands a very close relationship between the educational institutions and those whom they serve. Translated into more specific terms for pharmacy education, all engaged in pharmacy, not just one segment, be it educators, retailers, or any of the others, should become the source of wisdom in improving pharmaceutical education. The college facilities can serve in a consultive way and provide or motivate the leadership. But the essential wisdom resides in those who practice pharmacy for the people. It is their responsibility to see that professional education of the students is relevant to contemporary demands. They must be the prime movers for its continuous improvement.

At the same time each individual college must recognize clearly and fully that it cannot prepare its students for all of the many branches of the profession. The many specialized segments of pharmacy are almost professional or vocational entities in themselves and do require to a greater or lesser degree specific educational disciplines. Each college should take advantage of its own environment and develop its program within its resources and prevailing limitations. Thus, no two colleges of pharmacy will or should be alike if they are realistic in their aims and objectives.

In conclusion, may I again point out that those who have been close to our colleges of pharmacy know their faculties' desire to improve continuously the already remarkably good programs now being offered. In my opinion, the time is now opportune for the various segments of pharmacy to which we have referred in this paper, to institute a study of ways and means of utilizing the reservoir of trained persons available to them through our colleges. These studies will serve a two-fold purpose. First it will provide them with the necessary personnel, and secondly, and probably more important, it will alert the colleges of pharmacy to the needs of the profession and industry and thus enable them to fulfill what they consider their obligations. In an ever-changing world, the perfection of education is not possible; however, education is the responsibility of everyone. At the present time we might conclude that our pharmacy colleges are meeting the needs of the profession and industry to the extent of which they have been set forth; however, we do not feel that their facilities have been utilized to the fullest extent.

SELECTED ABSTRACTS

Experiments on the Prevention of Motion Sickness. Glaser, E. M., and Hervey, G. R. *The Lancet 262*:490 (1952). The authors made further studies on the prevention of motion sickness using hyoscine hydrobromide and phenergan. The subjects were 150 volunteers who were placed on rubber floats in a swimming pool with artificial waves. This new method was employed because of the inconstancy of the weather when previous experiments were conducted at sea.

The drugs employed were hyoscine hydrobromide 1 mg., phenergan 35 mg., hyoscine 1 mg. with phenergan 25 mg., hyoscine 0.65 mg. with phenergan 15 mg., and hyoscine 0.65 mg. with phenergan 15 mg. and mannitol hexanitrate 50 mg. Vomiting or nausea was evident in 11 per cent of the men when given hyoscine alone, in 27 per cent given phenergan alone, ranged from 7 to 14 per cent of the men given the combinations and was 57 per cent among them when given a placebo. The authors felt that no conclusions could be drawn as to the value of the combinations over hyoscine alone. It was felt that the benefit obtained could have resulted from the hyoscine alone. It was evident, however, that hyoscine gave better results than did phenergan alone.

A test was also made as to whether or not hyoscine would be effective if taken just prior to boarding the float. It was found that 78 per cent (calculated on the basis of the number vomiting on the previous day when a placebo was given) were protected from nausea and vomiting when the hyoscine was given 1¼ hours before boarding the float. Only 30 per cent were likewise protected when the hyoscine was given 5 to 10 minutes prior to the test. However, the authors expressed satisfaction that as many were protected when so little time was given for the absorption of the drug before the test was begun.

The authors made a concluding statement that, except for pethidine, all of the likely remedies have been investigated in Britain and North America and that no further improvements can be expected except by accident or by a systematic study of basic principles.

Trichlorethylene in Obstetric Analgesia. Smith, G. *GP 5*:61 (1952). Although approximately 80 per cent of all deliveries are performed in hospitals in the U. S. some rural areas have a high percentage of home deliveries where trained assistants are not available and facilities are at a minimum. The need for a safe, effective analgesic and anesthetic agent is evident. The author feels that such an agent is available in the form of trichlorethylene given by means of the Cyprane inhaler.

Trichlorethylene was used in 50 home deliveries. The administration of trichlorethylene ranged from 25 minutes to 14 hours. Among these cases it was found that a rapid induction to a marked analgesic and amnesic state was effected with a rapid recovery, although dizziness and slight mental confusion was present for a short time in some cases. Headache and nausea were very rare, as were excitement reactions, delirium and restlessness. There was no significant change in blood pressure but vagal tone tended to be increased, thereby opening the way for cardiac arrhythmias. However, the possibility of the latter developing is rare because such low concentrations of the agent are used. The latter is effected because the agent is self-administered and the loss of consciousness causes relaxation and discontinuation of the anesthetic.

Other advantages claimed for this agent by the author were its not unpleasant odor, no tendency to increase the incidence of hemorrhage or any other obstetric complication, no prolongation of labor, no effect on the uterus, no depression of fetal respiration, and its pronounced safety factor even in the absence of the doctor.

The Intravenous Use of Tetracaine as an Analgesic and Vasodilator. Smith, R. T. and Whitehouse, S. *U. S. A. F. Med. J. 3*:525 (1952). Tetracaine was administered intravenously in relatively large single doses to 51 patients with peripheral vascular diseases of various kinds and to 41 patients with various painful conditions including rheumatoid arthritis and painful, stiff joints following prolonged immobilization. The tetracaine was dissolved in sufficient saline, dextrose solution (5 per cent) or distilled water to make 10 cc. and then injected in 2 minutes or less. No signs or

symptoms of toxicity were noted in any patient who was given 40 mg. or less in more than 2 minutes. Eighteen patients who received 40 mg. of tetracaine in 20 seconds showed mild symptoms of toxicity. Sixteen injections of 60 mg. and 6 injections of 80 mg. did not produce untoward symptoms. Some patients receiving rapid injections manifested mild side effects such as dizziness, mild syncope, and mild generalized sweating. Blood pressure readings showed little change before and after the injection.

The clinical results with this treatment have been good. Pain relief and/or marked vasodilator action was noted in 78 per cent of the patients. The analgesic effect of tetracaine has exceeded that of morphine in a few patients. Its vasodilating effect has been similar to alcohol given orally but the effect of tetracaine has seemed to be largely confined to the diseased area. In some patients the clinical effects also appeared to equal or exceed the action of sympathetic nerve blocks.

The authors concluded that the intravenous injection of single daily doses of tetracaine has practical usefulness and appears to be relatively free of toxic side effects in the clinical treatment of many peripheral vascular diseases and in some painful states.

The Treatment of Hyperthyroidism With Methimazole. Hallman, B. L. and Bondy, P. K. *Am. J. Med. 11:724* (1951). Thirty-five patients with proved hyperthyroidism were studied by the authors in an evaluation of the antithyroid drug 1-methyl-2-mercaptoimidazole (Methimazole, Tapazole). A good therapeutic response occurred in all but one case. The latter case was that of a patient with heart disease who died a short time after therapy was begun. Most of the patients received a dose of 5 mg. four times a day but, in a few cases as much as 40 mg. per day were given.

The results obtained with methimazole were compared with those obtained with a group of patients treated at a different time with propylthiouracil. The effective dose of methimazole was found to be about one-tenth that of propylthiouracil. Moreover, the length of the period of required administration was less because of a more rapid response to methimazole than to propylthiouracil. This lower dosage

may be a factor in the lower toxicity observed with methimazole. No toxicity to methimazole was observed in this small group of patients.

The authors suggested that the difference in the rate of action between methimazole and propylthiouracil may be due to a more effective blocking of the formation of thyroxin by the former.

It was also found that a combination of methimazole and iodine was effective in preparing patients for subtotal thyroidectomy. Treatment was administered for 2 or 3 weeks prior to operation. The glands were then found to be easy to handle at the time of operation.

In some types of patients it has been found necessary to produce a euthyroid state before the administration of radioactive iodine because of the temporary increase in circulating thyroxin upon irradiation. The authors found that methimazole did not interfere with the uptake of radioactive iodine and the effectiveness of this type of therapy. All of these results led the authors to conclude that methimazole appears to be the antithyroid drug of choice at the present time.

Therapeutic Use of Isonicotinic Acid Hydrazide in Pulmonary Tuberculosis. Robitzek, E. H. and Selikoff, I. P. *Am. Rev. Tuberc. 65*:402 (1952). A group of 44 patients with acute, active, progressive, bilateral caseouspneumonic tuberculosis were treated orally for an average of 8.8 weeks with 2 to 10 mg./Kg./day of Marsilid (isonicotinic acid 2-isopropylhydrazide) or 2 to 4 mg./Kg./day of Rimifon (isonicotinic acid hydrazide). None of these patients had benefited previously from bed rest, streptomycin, *p*-aminosalicylic acid, medical collapse or surgical therapy and all had persistently positive sputum smears and a body temperature of 100 to 105° F. for 1 to 5 months before the beginning of the present therapy. All other medication was discontinued at the beginning of therapy with these new drugs.

A normal temperature was obtained in almost all of these patients within 10 days and in some of them within 2 days, after the beginning of therapy with the isonicotinic acid derivatives. There was at least a 50 per cent increase in food consumption and increases in body weight of from 7 to 32 lbs. Cough, expectoration, apathy, and drowsiness were completely eliminated or greatly reduced. Sputum bacillary

counts were reduced in 38 patients, in 8 of whom the smears became negative. There was a reduction in cavity size in 17 patients.

The therapeutic effects of Rimifon and Marsilid were roughly equal. Side effects such as dizziness, constipation, insomnia, headache, leg weakness, tinnitus, hyperreflexia, mouth dryness, and dyspnea were observed 206 times in the 38 patients treated with Marsilid and only 13 times in the 6 patients treated with Rimifon.

The Clinical Evaluation of Neomycin in Different Bases. Forbes, M. A., Jr., *South. Med. J. 45*:235 (1952). Neomycin sulfate in three different types of ointment bases was used in the treatment of 115 patients with impetigo, folliculitis, impetiginized eczematous dermatitis, and bacterial paronychia.

Thirty-nine patients received treatment with Myciguent, an ointment containing 5 mg./Gm. of neomycin sulfate in mineral oil, wool fat, and petrolatum. A second group of 48 patients was treated with an ointment containing 5 mg. neomycin sulfate per Gm. of a cream base composed of Tegacid regular (glyceryl monostearate combined with a sapamine salt), polysorbate 80, propylene glycol, spermaceti, methylparaben, and water. The third group of 28 patients was treated with an ointment composed of 5 mg. of neomycin sulfate per Gm. of ointment in a water-miscible base containing Carbowax 4,000, Carbowax 1500, Tween 20 (polyoxyalkylene ether of sorbitan monolaurate), and propylene glycol. The ointments were applied three times a day.

The author reported that all of the infections cleared within 2 to 10 days but that the results with the Myciguent and the cream base were superior to those with the water-miscible base. He also reported that patients infected with hemolytic streptococcus or with *Pseudomonas* required longer treatment than those infected with hemolytic staphylococcus. It was found that 66 of 68 strains of hemolytic *Staphylococcus aureus* were sensitive to 1 microgram of neomycin per cc., 37 of 94 strains of hemolytic streptococcus were sensitive to 5 micrograms per cc. and 25 strains to 5 to 10 micrograms. Reactions in 2 patients with impetiginized eczematous dermatitis cleared after the Myciguent base was substituted for the water-miscible base. Another reaction, believed to be localized cutaneous moniliasis in a patient with folliculitis, cleared after cessation of therapy.

Therapeutic Use of Sulfadiazine in Nongonococcal Urethral Inflammation. Graham, R. S., *U. S. Armed Forces Med. J. 3*:401 (1952). An increasing prevalence of a sexually acquired urethritis not due to the gonococcus has been reported from all three branches of the Armed Forces. Other forms of urethral irritation and causes of discharge were ruled out in the series of patients studied. It was found that penicillin was entirely useless in the treatment of this condition. However, sulfadiazine was effective in 90 per cent of 1,000 patients in the series when they were treated with an initial dose of 4 Gm. of sulfadiazine followed by 1 Gm. every 4 hours.

Chloramphenicol was moderately effective and was used in patients where a limitation or excessive loss of fluid was expected in connection with field duties. Aureomycin was less effective than was chloramphenicol. It was found that no drug was effective in these patients unless "milking down" the urethra, excessive fatigue, sexual intercourse, and alcoholic beverages were avoided.

Penicillin given by mouth as a prophylactic was not effective in preventing this disease. The author suggested that the widespread substitution of oral penicillin as a prophylactic against venereal disease for mechanical prophylactic measures may be a contributing factor in the increasing prevalence of nongonococcal urethritis. Although no etiologic agent for this disease is known the author postulated that if such an agent were found this would constitute the sixth venereal disease.

Therapeutic Use of Veratrum Viride in Toxemias of Pregnancy. Finnerty, F. A., Jr. *New England J. Med. 246*:646 (1952). A preliminary investigation paved the way for the development of dosage schedules for the administration of Vergitryl (a purified Veratrum viride extract) in hypertensive toxemias of pregnancy.

In nonconvulsive toxemias of pregnancy, including postpartum preeclampsia, 0.75 unit of Vergitryl mixed with 1 cc. of 1 per cent procaine is given intramuscularly at once and repeated whenever the blood pressure is over 140/90. The dose may be repeated every hour if necessary and if no hypotensive effect is obtained by the end of one hour the dose is increased to 0.9 unit.

For convulsive toxemia of pregnancy 1.5 units of Vergitryl in 20 cc. of 5 per cent dextrose in water is given intravenously at the rate of 1 cc. per minute until the first 20 mm. fall in systolic or 10 mm. fall in diastolic pressure occurs. Additional Vergitryl, at ½ the previous dose, is given whenever the blood pressure is 140/90 or above. The Vergitryl regimen is continued during labor and delivery and for the first 24 hours after delivery or until the blood pressure has become stable and signs and symptoms of toxemia have disappeared.

Nonconvulsive toxemia was treated in 114 patients with excellent results in 92, good results in 19, fair results in 3 and a poor result in 1. Convulsive toxemia was treated in 8 patients with excellent results in 4, good results in 2, and fair results in 2 patients. The only toxic manifestation was vomiting. In the 21 patients in whom this toxicity was manifested the vomiting was controlled by the intravenous administration of 50 mg. of pentobarbital sodium. The author reported that there were 2 fetal but no maternal deaths.

Therapeutic Use of Ion Exchange Substances in Edema. Best, M. M., *Am. Pract. Digest Treat. 3*:274 (1952). Four patients with incapacitating edema resulting from congestive heart failure, who were also refractory to mercurial diuretics, were treated with anion-cation exchange resins. Improvement was shown in three of the four patients. Constrictive pericarditis was considered to be the reason for the lack of response in the one patient. It became evident that careful consideration must be given to the adsorption of excessive amounts of ions from the system, for one of the patients developed low salt syndrome and one developed potassium depletion.

The author discussed the possible reasons for the synergistic effect between the mercurial diuretics and the ion exchange resins. He suggested that such synergism may be due to the fall in the plasma carbon dioxide-chloride ratio.

One or more of the following three ion exchange resins were employed with these patients: Carbo-Resin (12 per cent anion exchange resin, 29 per cent cation exchange resin in the potassium cycle and 59 per cent cation exchange resin in the hydrogen cycle), Natrinil (a cationic exchange resin of the carboxylic type, 80 per cent hydrogen

cycle and 20 per cent potassium cycle), and/or Resodec (a mixture of ammonium and potassium carboxylic exchange resins).

The author also reported that symptomatic improvement followed the administration of the ion exchange resins in 3 patients with edema due to chronic glomerulonephritis, intercapillary glomerulosclerosis complicated by diabetes mellitis and congestive heart failure attended by irritability of the myocardium. The administration of mercurial diuretics were contraindicted in each of these patients.

The Treatment of Pulpless Teeth With a Polyantibiotic Paste. L. I., *J. Can. Dental Assoc. 18:*181 (1952). A number of antibotics were tested *in vitro* for their effectiveness against the gram-negative, gram-positive, and yeast microorganisms usually found in root canals. The substances tested included Acti-dione, Asterol, fungistatin, thiolutin, rimocidin, fradicin, endomycin, humulon, lupulon, hexahydrolupulon, Perazil, aspergillic acid, gliotoxin, viomycin, aureomycin, terramycin, chloramphenicol, tyrothricin, and neomycin. The more promising compounds in this group were tested clinically.

As a result of this experimentation a paste was prepared containing 1,000,000 units of potassium penicillin G, 1 Gm. dihydrostreptomycin, 1 Gm. sodium caprylate and 3.0 DC 200 silicone fluid, 3-20 centistokes. The author stated that this paste was effective against all of the organisms likely to be encountered in a root canal and that it was more effective than any such paste previously prepared. In most cases one treatment was effective. A treatment consisted of filling the canal with the paste and sealing the cavity with temporary stopping and then with base plate gutta percha or with cement.

X-ray pictures were included to show the successful results in the treatment of a granuloma of the lower right central and of the lower right 2nd bicuspid, a traumatic injury of 3 lower incisors associated with slight loosening of the teeth, and a tooth showing resorption of root end and an area of rarefaction around the lower left cuspid.

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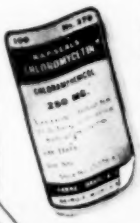

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